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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/773,935	02/02/2001	Jae Sung Kim	YHK-062	7194
34610	7590	10/06/2005	EXAMINER	
FLESHNER & KIM, LLP P.O. BOX 221200 CHANTILLY, VA 20153			SAID, MANSOUR M	
			ART UNIT	PAPER NUMBER
			2673	
DATE MAILED: 10/06/2005				

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/773,935

Applicant(s)

KIM ET AL.

Examiner

MANSOUR M. SAID

Art Unit

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 21 January 2005.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-23 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☒ Claim(s) 8-21 is/are allowed.
- 6) ☒ Claim(s) 1-7, 22 and 23 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____

DETAILED ACTION

Response to Amendment

1. This Office Action is in respond to the amendment filed on January 21, 2005.

Claim Rejections - 35 USC § 103

2. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

3. Claims 1-3 and 6 are rejected under 35 U.S.C. 103(a) as being unpatentable over Applicant Prior Art (hereinafter referred to as APA) in view of Kuriyama et al. (6,104,362; hereinafter referred to as Kuriyama), and further in view of Choi et al. (6,281,628 B1; hereinafter referred to as Choi).

As to claim 1, APA teaches a plasma display panel (PDP, (figure 2, (40)) having discharge cells (discharge cell, (figure 2, (44)) arranged in a matrix type (specification page 1), comprising sustaining electrodes (scanning and common electrodes, (figure 1, (16 & 17)) formed at the boundary portions between the discharge cells (specification pages 1-2).

APA does not expressly disclose that trigger electrodes formed at the inner sides of the discharge cells.

However, Kuriyama teaches a trigger electrode (Y electrode, (figure 2, (22a)) formed at the inner sides of the discharge cells (sustaining discharge, (figure 2)) (column 7, lines 10-17).

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to incorporate Kuriyama's teaching into APA's PDP display so as to increase the versatility of the display device.

APA and Kuriyama do not expressly teach sustaining electrodes formed at and traversing the boundary portions between the discharge cells.

However, Choi teaches sustaining electrodes formed at and traversing the boundary portions between the discharge cells (column 2, lines 22-44, column 5, lines 60-67, and column 6, lines 1-7).

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to incorporate Cho's teaching into APA's modified system so as to obtain the voltage on the electrodes, so that generating the sustain discharge again between the row electrode and the other row electrode (column 4, lines 10-15).

As to claim 2, Kuriyama teaches that the trigger electrodes (Y electrode, (figure 2, (22a)) are adjacent to an to any one of the sustaining electrodes (X electrode, (figure 2, (12))) formed at the boundary portions where they are formed (column 7, lines 10-17).

As to claim 3, Kuriyama teaches that the sustaining electrodes (X electrode, (figure 2, (12))) and the trigger electrodes (X electrode, (figure 2, (12))) are transparent electrodes (ITO, transparent conducting membrane) (column 7, lines 10-21)

As to claim 6, APA teaches that first barrier ribs (barrier ribs, (figure 1, (32)) arranged in a direction crossing the sustaining electrodes (on page 2, APA clearly stated "the barrier ribs (figure 1, (32)) arranged in parallel to the address electrode (figure 1, (24))", since sustaining electrode and address electrode are crossing each other, therefore, APA fairly shows that (the

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barrier ribs, (figure 1, (32) arranged in a direction crossing the sustaining electrodes (scanning/common electrodes, (figure 1, (16-17) (specification page 2, lines 25-37).

4. Claims 4-5 are rejected under 35 U.S.C. 103(a) as being unpatentable over APA, Kuriyama view of Choi as applied to claim 1 above, and further in view of Ishii et al. (6,531,995 B2; hereinafter referred to as Ishii).

As to claim 4, APA, Kuriyama and Choi disclose all claimed limitation in claim 4 except that an electrode formed from a conductive material having a light-shielding property at the centers of the sustaining electrodes and the sustaining electrodes.

However, Ishii teaches an electrode (metal electrode, (figure 19, (132)) formed from a conductive material (metal such as, copper) having a light-shielding property at the centers of the sustaining electrodes (transparent electrode, (figure 19, (132)) and the sustaining electrodes (transparent electrode, (figure 19, (132)) (column 10, lines 25-40 and column 19, lines 14-38).

Therefore, it would have been obvious to one ordinary skill in the art at the time the invention was made to combine Ishii's teaching having conductive material at the center of the electrode(s) into APA modified system so as to increase the versatility of the display device.

As to claim 5, Ishii teaches that first barrier ribs (partitioning walls, (figure 30, (177-177)) arranged in parallel to the sustaining electrodes (glass substrate) (column 1, lines 35-50).

5. Claim 7 is rejected under 35 U.S.C. 103(a) as being unpatentable over APA, Kuriyama and Choi as applied to claim 4 above, and further in view of Matsuzaki et al. (5,939,828).

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APA, Kuriyama, Choi and Ishii disclose all claimed limitation in claim 7, but omit that the first barrier ribs overlap with the bus electrodes

However, Matsuzaki discloses that the first barrier ribs overlap with the bus electrodes (figures 5a, 7a & 8a, column 15, lines 1-16 and column 16, lines 1-30).

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to have Matsuzaki's device having overlap barrier ribs with electrode(s) into APA's modified so as to prevent a reduction in the degree of opening in the display cell (column 16, lines 15-20).

6. Claims 22-23 are rejected under 35 U.S.C. 103(a) as being unpatentable over Ryu et al. (6,504,519; hereinafter referred to as Ryu) in view of Kim et al. (5,747,939; hereinafter referred to as Kim).

As to claim 22, Ryu teaches a plasma display panel (PDP, (figure 6)) and column 4, lines 61-67), comprising first and second sustaining electrodes (figure 7, (C electrodes and P electrodes)) at opposing boundaries of a discharge cell (figure 7, (51) (column 5, lines 34-61), the first and second sustaining electrode (figure 7, (C electrodes and P electrodes)) extending across the opposing boundaries between adjacent discharge cells (figure 7, (51) (figures 6-7, column 4, lines 61-67 and column 5, lines 1-61).

Ryu does not expressly teach that a trigger electrode formed in the discharge cells.

However, Kim teaches that a trigger electrode (figure 2, (9)) formed in the discharge cells (figure 2, abstract, column 2, lines 22-27, and column 3, line 37 through column 4, line 1-2).

Therefore, it would have been obvious to one ordinary skill in the art at the time the invention was made to combine Kim's device having a trigger electrode formed inside discharge cells into Ryu's device so as to make the whole structure of the display panel compact (column 3, lines 45-46).

7. Claim 23 is rejected under 35 U.S.C. 103(a) as being unpatentable over Ryu in view of Kim as applied to claim 22 above, and further in view of Ushifusa et al. (5,818,168; hereinafter referred to as Ushifusa).

Ryu and Kim teach all claimed limitations except that the trigger electrode is spaced nearer to first electrode than the sustaining electrode.

However, Ushifusa teaches that the trigger electrode (figure 10 (p), (9)) is spaced nearer to first electrode (figure 10 (p)), (9)) than the second electrode (figure 10 (p), (5a-b)) (figure 10 (p)), column 17, lines 51-67 and column 18, lines 1-36).

Therefore, it would have been obvious to one ordinary skill in the art at the time the invention was made to use Ushifusa's device having a trigger electrode formed nearer to the one electrode than the other electrode into Ryu's modified device so as to generate auxiliary discharge in the auxiliary discharge space (column 17, lines 64-67).

Allowable Subject Matter

8. Claims 8 to 21 are allowed.

Response to Arguments

9. Applicant's arguments with respect to claims 1-7 and 22-23 have been considered but are moot in view of the new ground(s) of rejection.

Conclusion

10. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS OFFICE ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than **SIX MONTHS** from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to MANSOUR M. SAID whose telephone number is (703) 306-5411. The examiner can normally be reached on MF (8:30-6:30).


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If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, BIPIN SHALWALA can be reached on (703) 305-4938. The fax phone number for the organization where this application or proceeding is assigned is (571) 272-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Mansour M. Said

9/30/05


Ricardo Osorio
PRIMARY EXAMINER